I claim:

1. A method for using a length dispersion of an etalon, comprising:

defining a plurality of target resonant frequencies; and

selecting an etalon having a plurality of resonant frequencies which approximate the target resonant frequencies,

wherein the selection is made based at least in part in consideration of a length dispersion of the etalon.

2. The method of claim 1, wherein the selection is made based at least in part in consideration of a length dispersion of a dielectric stack of the etalon.

3. The method of claim 1, wherein the selection is made based at least in part in consideration of a length dispersion of a plurality of dielectric stacks of the etalon.

4. The method of claim 1, wherein the target resonant frequencies comprise at least three periodic frequencies.

5. The method of claim 1, wherein the target resonant frequencies comprise at least three quasi-periodic frequencies.

6. A method for using a length dispersion of an etalon, comprising:

defining a plurality of target resonant frequencies;

determining a material dispersion for an etalon; and

selecting a length dispersion for the etalon suitable to cooperate with the material dispersion to produce a plurality of resonant frequencies which approximate the target resonant frequencies.

7. The method of claim 6, wherein the selecting step comprises selecting a dielectric stack of the etalon.

8. The method of claim 6, wherein the selecting step comprises selecting a refractive index step of a dielectric stack of the etalon.

9. The method of claim 6, wherein the selecting step comprises selecting a number of layers of a dielectric stack of the etalon.

10. The method of claim 6, wherein the selecting step comprises selecting a layer thickness of a dielectric stack of the etalon.

11. The method of claim 6, wherein the selecting step comprises selecting a plurality of dielectric stacks of the etalon.

12. The method of claim 6, wherein the target resonant frequencies comprise at least three periodic frequencies.

13. The method of claim 6, wherein the target resonant frequencies comprise at least three quasi-periodic frequencies.

14. A method for using a length dispersion of an etalon, comprising:

determining a length dispersion of an etalon; and

selecting the etalon for application in an optical system based at least in part on the length dispersion of the etalon.

15. The method of claim 14, further comprising determining an impact of the length dispersion of the etalon on a plurality of resonant frequencies of the etalon.

16. The method of claim 15, further comprising comparing the plurality of resonant frequencies of the etalon with a plurality of target resonant frequencies.

17. The method of claim 14, wherein the length dispersion determination is based at least in part on a refractive index step of a dielectric stack of the etalon.

18. The method of claim 14, wherein the length dispersion determination is based at least in part on a number of layers of a dielectric stack of the etalon.

19. The method of claim 14, wherein the length dispersion determination is based at least in part on a thickness of layers of a dielectric stack of the etalon.

20. A method for using a length dispersion of an etalon, comprising:

determining a length dispersion of an etalon;

determining an impact of the length dispersion of the etalon on a plurality of resonant frequencies of the etalon;

comparing the plurality of resonant frequencies of the etalon with a plurality of target resonant frequencies; and

5   selecting the etalon for application in an optical system based at least in part on a result of the comparison.

21.   The method of claim 20, wherein the target resonant frequencies comprise at least three periodic frequencies.

22.   The method of claim 20, wherein the target resonant frequencies 10   comprise at least three quasi-periodic frequencies.

23.   The method of claim 20, wherein the length dispersion determination is based at least in part on a refractive index step of a dielectric stack of the etalon.

24.   The method of claim 20, wherein the length dispersion 15   determination is based at least in part on a number of layers of a dielectric stack of the etalon.

25.   The method of claim 20, wherein the length dispersion determination is based at least in part on a thickness of layers of a dielectric stack of the etalon.